

REMARKS

This application is believed to be in condition for allowance because the claims are non-obvious and patentable over the cited references. The following paragraphs provide the justification for this belief. In view of the following reasoning for allowance, the Applicant hereby respectfully requests further examination and reconsideration of the subject patent application.

1.0 35 U.S.C. §112, Second Paragraph Rejections:

The Office Action of November 6, 2003 separately rejects claims 1-10, 10-17, and 1-23 under 35 U.S.C. §112, Second Paragraph. However, in view of the following discussion, the Applicant respectfully traverses the rejections under 35 U.S.C. §112, Second Paragraph.

1.1 35 U.S.C. §112, Second Paragraph Rejection of Claims 1-10:

Claims 1-10 were rejected under 35 U.S.C. §112, Second Paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In particular, the Office Action suggests that the element in claim 1 reading "comparing each interest in each set of interests to interests in **every other** set of interests," "is unclear and vague whether the applicant is claiming that a set of interests is skipped during the comparison step."

First, the Applicant would like to point out that the claim language cited by the Office Action in this rejection is not included in claim 10, and that claim 10 is an independent claim which does not depend from claim 1. Consequently, it appears that the above-cited rejection of "claims 1-10" is actually intended to refer instead to claims 1-9. Therefore, the Applicant respectfully traverses the rejection of claim 10 under 35 U.S.C. §112, Second Paragraph because the language cited as justifying the rejection of claim 10 is simply not included in claim 10. Consequently, the Applicant respectfully

requests reconsideration of the rejection of claim 10 under 35 U.S.C. §112, Second Paragraph, in view of the proceeding discussion.

Next, with respect to the rejection of claims 1-9, the Applicant is ***not*** claiming that a set of interests is ***skipped*** during the comparison. In fact, it should be clear from the cited claim language that the Applicant is claiming that ***all*** of the interests in every set of interests are compared to the interests in every other set of interests. The Applicant respectfully suggests that the claim language is clear on its face. For example, the cited language includes two basic parts: 1) "***comparing each interest in each set of interests***" and 2) "to interests in ***every other*** set of interests." Clearly, ***each interest in each set*** is compared to the ***interests in every other set***. The plain meaning of this comparison is clear on its face. Consequently, it should be clear that no "set of interests is skipped" during the comparison step.

Therefore, the Applicant respectfully suggests that claim 1 does in fact "particularly point out and distinctly claim the subject matter which the applicant regards as the invention." Thus, the meaning of the phrase objected to by the Office Action as being "unclear and vague" is clear on its face. Consequently, the rejection under 35 U.S.C. §112, Second Paragraph, is improper. Therefore, the Applicant respectfully traverses the rejection of claims 1-9 under 35 U.S.C. §112, Second Paragraph, and respectfully requests reconsideration of the rejection of claims 1-9 under 35 U.S.C. §112, Second Paragraph, in view of the proceeding discussion.

1.2 35 U.S.C. §112, Second Paragraph Rejection of Claims 10-17:

Claims 10-17 were rejected under 35 U.S.C. §112, Second Paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. In particular, the Office Action cites the following elements in claim 10: "partially disclosing each encoded interest in each set of interests to each unique entity; automatically performing a comparison of each partially disclosed encoded interest with the partially disclosed interests in each other set of interests."

The Office Action then suggests that "it is unclear what 'partially disclosing' or 'partially disclosed' interests are compared or what function is being performed."

In contrast to the suggestion advanced by the Office Action that the cited claim element is unclear, the Applicant respectfully suggests that the cited element is clear on its face, especially when interpreted in light of the specification of the patent application.

In particular, the Office Action first objects to the term "partially disclosing" interests. However, the Applicant respectfully suggests that partially disclosing interests is clearly explained throughout the text of the specification, with specific examples of such partial disclosure being provided in the working example in paragraphs 65 through 82. Further, paragraphs 79-81 provide a simple example of a turn-based partial disclosure of interests wherein rather than disclosing a complete interest, each interest is disclosed one part at a time. For example, an interest represented by the number "178" is disclosed in the working example of paragraphs 79-81 by first disclosing an "8," then disclosing a "7," and finally by disclosing a "1." In this example, it should be clear that the interest is "partially disclosed" in three separate stages, rather than simply fully disclosing interest "178" in a full disclosure.

Thus, it should be clear that the function being performed by the cited claim language is that each interest of each set of interests is first "partially disclosed" to each unique entity. The partially disclosed portions of each interest are then compared to the partially disclosed interests in each other set of interests. In this manner, comparisons of the interests of each entity are accomplished in a step-by-step fashion, with these partial disclosures and partial comparisons only continuing for each interest so long as the comparison of the partially disclosed interest continues to match whatever other partially disclosed interest it is being compared to.

One clear advantage of such a process is that the partial disclosure and comparison only continues for particular interests as long as there is a continuing match. Consequently, non-matching interests will not be fully disclosed to the other

unique entities. As a result of this partial disclosure process, non-matching interests are simply not shared with other unique entities. Therefore, the other unique entities will only know those interests of a particular entity that fully match interests held by those other unique entities.

Therefore, the Applicant respectfully suggests that claim 10 does in fact “particularly point out and distinctly claim the subject matter which the applicant regards as the invention.” Thus, the meaning of the phrase objected to by the Office Action as being “unclear” is clear on its face, especially when interpreted in light of the specification, and in particular, when interpreted in light of the working example provided in paragraphs 79-81 of the specification. Consequently, the rejection under 35 U.S.C. §112, Second Paragraph, is improper. Therefore, the Applicant respectfully traverses the rejection of claims 10-17 under 35 U.S.C. §112, Second Paragraph, and respectfully requests reconsideration of the rejection of claims 10-17 under 35 U.S.C. §112, Second Paragraph, in view of the proceeding discussion.

1.3 35 U.S.C. §112, Second Paragraph Rejection of Claims 1-23:

Claims 1-23 were rejected under 35 U.S.C. §112, Second Paragraph “as being incomplete for omitting essential steps, such omission amounting to a gap between the steps.” In particular, the Office Action suggests that there are two steps which are omitted.

First, the Office Action suggests that “the source of the unique interests or sets of interests” is an omitted step. However, the Applicant respectfully suggests that there is no need to claim any particular “source” for the interests or set of interests that are being compared, as the source of such interests is **not** taught as being critical in the specification. Further, as clearly explained in MPEP 2164.08(c), a rejection based on the grounds that a disclosed critical limitation is missing from a claim should be made **only** when the language of the specification makes it clear that the limitation is critical for the invention to function as intended.

The Applicant respectfully suggests that the specification in no way describes, or in any way suggests that the source of any particular set of interests is critical. In fact, the sets of interests are generally described in paragraph 43 of the specification as follows:

"In particular, with reference to FIG. 2, each entity has a set of interests 205, 210 and 215, respectively, stored in a computer readable medium such as an electronic list or database, with each entities interest set preferably accessible only to that entity. ***These sets of interests, 205, 210 and 215, are preferably compiled using conventional techniques, such as by user selection of interests from a list of interests, or user entry of any desired characters, words, phrases, numbers, etc. for representing interests.*** In one embodiment, ***user selection or entry of interests*** is accomplished via an interest input module, 220, 225 and 230, ***which uses conventional data entry techniques*** for selecting interests from a predefined list or simply entering any desired interest. Further, in one embodiment, a ***set of interests for each entity is automatically generated using any of a number of conventional probabilistic models for predicting user interests.***" (emphasis added)

Clearly, in view of the above-cited text, sets of interests may be developed or populated using a number of conventional methods, including, for example, user selection from a list of entries, or automatic generation of interest sets using conventional probabilistic models. Therefore, it should be clear that in no way is the source of the set of interests an "essential step" which amounts to a gap between the steps. Therefore, the Applicant respectfully suggests that claims 1-23 do ***not*** omit an essential step relating to the "source of unique interests or sets of interests.

Next, the Office Action suggests that another omitted step is raised by the question of whether "after terminating the comparison step, whether the following "progressive comparison for specific interests with respect to each set of interests

wherein the specific interests do partially match any interests' is initiated or is a continuation of the previous comparison."

This question seems to be drawn from claim 1, as claim 1 includes the following elements:

"terminating the progressive comparison for specific interests with respect to each set of interests wherein the specific interests do not partially match any interests;

continuing the progressive comparison for specific interests with respect to each set of interests wherein the specific interests do partially match any interests;" (emphasis added)

However, the applicants respectfully suggest that the meaning of these elements is clear and unambiguous, and that the question raised by the Office Action is neither warranted nor supported. For example, the Office Action raises the question as to whether "...the progressive comparison for specific interests... ***is initiated or is a continuation*** of the previous comparison."

In response, the Applicant would like to point out that in quoting the language of claim 1, the Office Action has ***omitted*** the word "***continuing***" from the recitation of the cited element of claim 1. Clearly, when read in full, i.e., "***continuing the progressive comparison*** for specific interests..." the cited text must be understood to mean that the comparison is a ***continuation*** of the previous progressive comparison. In fact, as explained above, examples of the termination and continuation of the progressive comparisons are provided with respect to the working example illustrated in paragraphs 79-81 of the specification, as discussed above. Therefore, the Applicant respectfully suggests that claims 1-23 do not omit an essential step relating to whether "...the progressive comparison for specific interests... is initiated or is a continuation of the previous comparison."

Finally, the Office Action offers the blanket statement that “the applicant’s claims lack structure and do not clearly delineate the interconnections between the steps.” However, in contrast to this assertion, the Applicant respectfully suggests that the claims do, in fact, provide structure which clearly delineates the interconnections between the steps. Further, as the Office Action fails to cite any specific examples or arguments whatsoever of this alleged lack of structure, any rejections under 35 U.S.C. §112, Second Paragraph, based on this alleged lack of structure must be deemed to be invalid for being completely without support.

Clearly the Applicant has demonstrated that claims 1-23 are *not* “incomplete for omitting essential steps, such omission amounting to a gap between the steps.” Further, as noted above, there is no support offered for any rejection based on an alleged lack of claim structure. Consequently, the rejection of claims 1-23 under 35 U.S.C. §112, Second Paragraph, is improper. Therefore, the Applicant respectfully traverses the rejection of claims 1-23 under 35 U.S.C. §112, Second Paragraph, and respectfully requests reconsideration of the rejection of claims 1-23 under 35 U.S.C. §112, Second Paragraph, in view of the proceeding discussion.

2.0 Rejections under 35 U.S.C. §103(a):

In the Office Action of November 6, 2003, claims 1-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shear et al. (“*Shear*,” U.S. Patent 6,112,181) in view of Hilsenrath et al. (“*Hilsenrath*,” U.S. Patent 5,926,812).

In order to deem the Applicant’s claimed invention unpatentable under 35 U.S.C. §103(a), a prima facie showing of obviousness must be made. However, as fully explained by the MPEP Section 706.02(j), to establish a prima facie case of obviousness, three basic criteria must be met. First, ***there must be some suggestion or motivation***, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, ***to modify the reference or to combine reference teachings***. Second, there must be a ***reasonable expectation of success***.

Finally, ***the prior art reference (or references when combined) must teach or suggest all the claim limitations.***

Further, in order to make a prima facie showing of obviousness under 35 U.S.C. 103(a), ***all*** of the claimed elements of an Applicant's invention must be considered, ***especially when they are missing from the prior art. If a claimed element is not taught in the prior art and has advantages not appreciated by the prior art, then no prima facie case of obviousness exists.*** The Federal Circuit court has stated that it was error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein (*In Re Fine*, 837 F.2d 107, 5 USPQ2d 1596 (Fed. Cir. 1988)).

2.1 Rejection of Claims 1-9:

Independent claim 1 was rejected under 35 U.S.C. §103(a) based on the rationale that ***Shear*** discloses the elements of claim 1 with the exception of "continuing the progressive comparison for specific interests with respect to each set of interests wherein the specific interest do partially match any interests." The Office Action then suggests that this claimed element is disclosed by ***Hilsenrath***. The Office Action then rejects each of dependent claims, e.g., claims 2-9 based on the proposed ***Shear / Hilsenrath*** combination.

In particular, with respect to independent claim 1, the Office Action first suggests that ***Shear*** "teaches a system for... progressively comparing each interest in each set of interests to interests in every other set of interests"

However, as described above with respect to the rejections of claim 1 under 35 U.S.C. §112, Second Paragraph, the "***progressive comparison***" described and claimed by the Applicant involves a turn-based partial disclosure and comparison of interests in each set of interests which is designed to avoid full disclosure of any non-

shared interest between sets of interests. **Shear** simply fails to disclose, or in any way suggest any such feature.

For example, the Office Action cites **Shear** column 14, lines 12-26; figures 16A-16C and associated text, and column 8, line 26 through column 30, line 50, as disclosing the Applicant's claimed "progressive comparison."

However, the text cited by the Office Action generally discloses methods for using rights management information in a matching, narrowcasting, classifying and/or selecting process. Further, the matching and classification utility system described by **Shear** makes use of pre-existing classification schemes, including at least some rights management information and/or other qualitative and/or parameter data indicating and/or defining classes, classification systems, class hierarchies, category schemes, class assignments, category assignments, and/or class membership. (See Abstract).

Further, as illustrated by Figures 5-16C, **Shear** discloses that the "matching and classification" is provided via the use of an "electronic matchmaker" or "matching classification system" which is used to determine whether one or more items from different groups or classes match. For example, as described in col. 9, line 45 through column 14, line 29, and col. 33, line 48 through col. 81, line 6, **Shear** generally explains that the "matching and classification utility system 900" includes a "matching engine 906" which "matches things with other things, things with people, and/or people with other people." However, this matching is generally accomplished using a "secure environment" or a "secure node" for determining whether matches exist.

In other words, **Shear** generally describes a system wherein one or more parties or entities **completely discloses** particular pieces of information to an "electronic matchmaker" which resides in a "protected processing environment," "secure node," "secure container," etc., wherein the "electronic matchmaker" operates to compare those particular pieces of information to particular pieces of information provided by one or more other parties or entities. Then for each party, the electronic matchmaker

proceeds to inform each of the parties which of the particular pieces of information match those of any other party. Further, because the "electronic matchmaker" operates in the "secure" computing environment, particular non-matching pieces of information provided by each entity are not disclosed to other entities outside of the secure computing environment.

Unfortunately, this method requires the use of one or more trusted computing environments (i.e., electronic chips, "secure containers," "secure nodes," etc.) for operation to which each entity **completely discloses** particular pieces of information. For example, as described in col. 12, lines 1-19, "the electronic matchmaker can employ a protected processing environment 154 [such as] ...a tamper-resistant 'chip' within the computer -- but it can be hardware-based, software-based, or a combination of hardware and software..." In other words, the "electronic matchmaker" operates as a type of secure "trusted agent" for determining whether particular items of information match between any particular entities. Information is then completely disclosed to the "electronic matchmaker" and matches are then reported back to each entity by the "electronic matchmaker."

However, as described in paragraph 10 of the Applicant's specification, one of the stated advantages of the Applicant's claimed invention is that "**unlike conventional schemes** for disclosing or sharing common interests, such disclosure or non-disclosure of interests is accomplished in accordance with the present invention **without the use of a third party, mediation, or trusted agent type application or process for comparing shared or common interests**. Consequently, in accordance with the present invention, **there is no database, application, process, etc. that is external to any entity to which the interests of that entity is disclosed or revealed for the purposes of determining whether any of the entities interests match those of any other entity.**" (emphasis added)

Further, as described throughout the Applicant's specification, the matching of shared interests without the use of "trusted agent" type applications (such as the

“electronic matchmaker” described by **Shear**) is accomplished through the use of direct progressive comparisons based on the partial disclosures of particular interests between each set of interests of entity directly. Further, as described above with respect to the working example illustrated in paragraphs 79-81 of the specification, this progressive comparison, in combination with the other elements of the Applicant’s claimed invention operates to directly disclose only those interests of one set that match interests in another set by using the claimed progressive comparisons ***without the use of a third party trusted agent type application***, as with the “electronic matchmaker” described by **Shear**.

Consequently, it should be clear that the progressive comparison of partially disclosed interests, which is one feature of claim 1, is not taught, disclosed, or in any way suggested by **Shear**. Therefore, as this claimed feature is not taught, disclosed, or in any way suggested by **Shear**, it should also be clear that further operations involving the claimed progressive comparison are also not taught, disclosed, or in any way suggested by **Shear**. For example, for the reasons described above, **Shear** also fails to disclose “***analyzing the results of the progressive comparison...***”, “***terminating the progressive comparison for specific interests...***”, and “***continuing the progressive comparison...***” Further, such progressive comparisons are also not disclosed by the **Hilsenrath** reference, and in fact, the Office Action does not suggest that **Hilsenrath** discloses such a capability. (As described by the Office Action, **Hilsenrath** teaches a “cluster generation and cluster similarity measurement to achieve a more accurate search result or comparison match”).

Consequently, no prima facie case of obviousness has been established in accordance with MPEP Section 706.02(j) and in accordance with the holdings of *In Re Fine*. This lack of a prima facie showing of obviousness means that the rejected claim is patentable under 35 U.S.C. §103(a). The basis for this patentability is the nonobvious language of independent claim 1, which includes the following novel language:

"A system for determining shared interests between at least two sets of interests, comprising:

progressively comparing each interest in each set of interests to interests in every other set of interests;

analyzing the results of the progressive comparison for determining whether any interests belonging to any set of interests ***partially matches any interests in any other set of interests***;

terminating the progressive comparison for specific interests with respect to each set of interests ***wherein the specific interests do not partially match any interests***;

continuing the progressive comparison for specific interests with respect to each set of interests ***wherein the specific interests do partially match any interests***; and

determining all shared interests between any of the at least two sets of interests by continuing the progressive comparison of interests to identify all interests belonging any set of interests that completely match interests in any other set of interests." (emphasis added)

Therefore, the Applicant respectfully traverses the rejection of independent claim 1, and thus the rejection of dependent claims 2-9, and requests reconsideration of the rejection of claims 1-9 under 35 U.S.C. §103(a) over ***Shear*** in view of ***Hilsenrath*** in view of the non-obviousness of independent claim 1.

2.2 Rejection of Claims 10-16 and 17-23:

Independent claims 10 and 17 were rejected under 35 U.S.C. §103(a) based on the rationale that ***Shear*** discloses the elements of claim 10 and 17 with the exception of "continuing to automatically perform the partial comparison of each encoded interest for specific interests for as long as there is a partial match of the specific interests." The Office Action then suggests that this claimed element is disclosed by ***Hilsenrath***. The

Office Action then rejects each of dependent claims, e.g., claims 11-16 and 18-23, respectively, based on the proposed **Shear / Hilsenrath** combination.

In particular, with respect to independent claims 10 and 17, the Office Action suggests that **Shear** “teaches... partially disclosing each encoded interest in each set of interests to each unique entity.” The Office Action offers col. 27 of the **Shear** reference in support of this contention.

However, as described above with respect to the rejections of claim 1 under 35 U.S.C. §112, Second Paragraph, and 35 U.S.C. §103(a), the progressive comparison described and claimed by the Applicant involves a turn-based “**partial disclosure**” and comparison of interests in each set of interests which is designed to avoid full disclosure of any non-shared interest between any two or more unique entities. As discussed above, **Shear** simply fails to disclose, or in any way suggest any such feature. Further, it should be noted that col. 27 of the **Shear** reference, offered as support for the contention that **Shear** teaches “partially disclosing each encoded interest in each set of interests to each unique entity” simply provides a recitation of specific examples of how the invention described by **Shear** may be used. None of these specific examples offered in col. 27 of the **Shear** reference teaches, describes, or in any suggests, “**partially disclosing**” or “**partially revealing**” **interests directly between two or more entities**, as is claimed by the Applicant in independent claims 10 and 17.

Consequently, no prima facie case of obviousness has been established in accordance with MPEP Section 706.02(j) and in accordance with the holdings of *In Re Fine*. This lack of a prima facie showing of obviousness means that the rejected claim is patentable under 35 U.S.C. §103(a). The basis for this patentability is the nonobvious language of independent claims 10 and 17.

For example, independent claim 10 includes the following novel language:

“A computer-implemented process for automatically determining whether unique entities have any matched interests without disclosing non-matched interests, comprising:

providing a set of interests for each entity;

encoding each interest for each set of interests;

partially disclosing each encoded interest in each set of interests to each unique entity;

automatically performing a comparison of each partially disclosed encoded interest with the partially disclosed interests in each other set of interests;

determining whether there is a partial match of interests between the partially disclosed interests of any unique entities;

continuing to automatically perform the partial comparison of each encoded interest for specific interests for as long as there is a partial match of the specific interests between any unique entities;
and

automatically identifying interest matches between any unique entities through the continued automatic partial comparison of each encoded interest.” (emphasis added)

Similarly, claim 17 recites the following novel language:

“A computer-readable medium having computer executable instructions for identifying common interests between at least two entities without using a third party, said computer executable instructions comprising:

partially revealing each interest of each entity to each other entity;

determining whether any of the partially revealed interests match any other partially revealed interests by comparing the partially revealed interests;

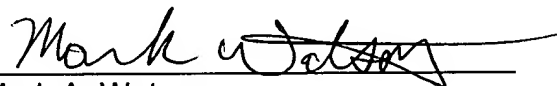
continuing to partially reveal more of each partially matched interest of each entity to each other entity having a corresponding partially matched interest;
continuing to compare the partially matched interests; and
automatically determining whether the partially matched interests are common interests." (emphasis added)

Therefore, the Applicant respectfully traverses the rejection of independent claims 10 and 17, and thus the rejection of dependent claims 11-16 and 18-23, respectively, and requests reconsideration of the rejection of claims 10-23 under 35 U.S.C. §103(a) over ***Shear*** in view of ***Hilsenrath*** in view of the non-obviousness of claims 10 and 17.

CONCLUSION

In view of the above, it is respectfully submitted that claims 1-23 are in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of claims 1-23 and to pass this application to issue. Additionally, in an effort to further the prosecution of the subject application, the Applicant kindly invites the Examiner to telephone the Applicant's attorney at (805) 278-8855 if the Examiner has any questions or concerns.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Mark A. Watson", is written over a horizontal line.

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